George, which was taken over recently by the Government for patrol duty in the Bay of Fundy, has been laid up for the winter, and that the C.P.R. s.s. Montford is taking her place.

The Government wharf at Miscou harbor, Little Shippigan, N.B., has been completed. It is 860 x 20 ft., with a head block 30 x 40 ft., the L being on the east side. It extends out from the south end of Miscou Island.

Press reports from Newfoundland state that the Reid Newfoundland Co.'s s. s. Lintrose is to be sold for war purposes, and that the company's s. s. Kyle will replace her on the Port aux Basque and North Sydney route.

E. A. Labelle and F. Robinson, two of the Montreal Harbor Commissioners, inspected the harbor works at St. John, N.B., at the end of December, at the invitation of the Minister of Marine. The chairman of the commissioners, W. G. Ross, intended to be present, but was prevented through illness.

In referring to the car ferry service, which will be inaugurated shortly, between New Brunswick and Prince Edward Island, the President of the Charlottetown Board of Trade, stated recently that he believed that such service would before long, be supplemented by the operation of one or more improved aeroplanes.

A press dispatch from Halifax, states that the s. s. Wacousta, which arrived, Jan. 9 from Sydney, N. S., where she had been fitted out for icebreaking work for the Russian Government at Archangel, will be used locally for patrol work. It is stated that it was discovered that she was unable to carry sufficient fuel for the trip across the ocean, and the project was abandoned.

The ice breaking steam tug, J. T. Horne, which was sold some time ago to the Russian Government for use in the harbor at Archangel, and which made an unsuccessful attempt to cross the ocean, has had a number of necessary alterations completed at Sydney, N.S. A false deck has been built with heavy planking on a steel frame about 7 ft. high, running from the bow to abaft the deck house. She left Sydney, Jan. 7, for Halifax, where she is to provision and prepare for the trip.

The Kilkeel Co.'s s. s. Kilkeel, which went ashore early in January, on the Bald Rock shoal, near Canso, N. S., has become a total loss. She was chartered by the Inverness Ry. and Coal Co., which, with the vessel Owning company, is closely allied with the Canadian Northern Ry. The Kilkeel was built at Paisley, Scotland, in 1895, and was screw driven by engine of 39 n.h.p. Her dimensions were,—length 135 ft., breadth 21 ft., depth 9.4 ft.; tonnage, 252 gross, 56 register.

## Province of Quebec Marine.

The Quebec Harbor Commissioners are asking the Government for a loan of \$1,500,000 in order to complete certain harbor works. At an interview in Ottawa, Jan. 15, the Minister of Marine promised that the application would receive the Government's attention

The ship channel across the Horseback bar in the St. Lawrence, between Quebec and Montreal, has been changed slightly in direction, and a new channel 450 ft. wide by 30 ft. deep at extreme low water has been completed. The change will necessitate the abandonment of the Cap Charles range in the alignment of the Calvaire above Cap Charles. The new lights will be exhibited

on the reopening of navigation. The Cap Charles channel has also been widened and deepened, to the same dimensions as the foregoing channel, with the exception of a length of 1,250 ft. by the buoy 77Q, where the old depth of 27½ ft. at ordinary low water exisits. This will be completed to 30 ft. during the year.

## Ontario and the Great Lakes.

The Northern Navigation Co.'s s. s. City of Midland suffered considerable damage to the interior, by a fire which broke out in the passenger saloon, while she was at her winter berth at Collingwood, Dec. 30.

A Collingwood press dispatch states that the Playfair interests have placed a contract with Pratt, Haney and Marfarlane for the construction of a large cement coal dock, which is to be equipped with the most modern coal handling machinery, at Midland.

The United States Lake Survey reports the levels of the Great Lakes in feet above tidewater for December, as follows,—Superior 602.08; Michigan and Huron 579.62; Erie 571.31; Ontario 244.83. Compared with the average December levels for the past ten years Superior was 0.23 ft. below; Michigan and Huron 0.61 ft. below; Erie 0.45 ft. below, and Ontario 0.77 ft. below. It was anticipated that during January, Superior would be 0.3 ft. lower, Michigan and Huron 0.2 ft. lower, that Erie would remain stationary, and that Ontario would be 0.1 ft. higher.

The grounds in the vicinity of the Brockton Point light station are being improved for park purposes, a concrete retaining wall and a boulevard are being built and a new lighthouse is under construction. The lighthouse is a square tower with sloping sides and an octagonal lantern. The structure is 42 ft. from the base of the tower to the top of the lantern ventilator, with the light 40 ft. above high water mark. As soon as the lighthouse is completed the illuminating apparatus will be removed from the present wooden structure and installed in the new tower.

James Carruthers, President; J. W. Norcross, Managing Director, and C. A. Barnard, K. C., Solicitor, Canada Steamship Lines, Ltd., returned to Montreal, early in January, after a business visit to England. It is said that while they were there the company's operating results for the past season were discussed with the English committee, who are reported to have expressed their satisfaction, considering the state of business during the latter part of the year. Press reports state that the company has received \$1,250,000 for additional working capital, from the English committee.

## British Columbia and Pacific Coast Marine.

The C.P.R. s.s. Princess Charlotte has been withdrawn from service for the winter. She is to be thoroughly overhauled and refitted in readiness for service on the Alaska route in the summer.

The C. P. R. has installed an elevating apparatus on its wharves at Vancouver, to enable cargoes to be handled with ease at any stage of the tide.

The Imperial Oil Co.'s oil tank steamer Azov is being repaired at North Vancouver, after suffering considerable bottom damage by running on reefs off the coast of Chili about three months ago.

The Department of Marine, which issued special regulations recently for the navigation of Barkley Sound, has announced that these have been cancelled and that navigation in all parts of the sound is again open to all vessels.

C. Gardiner Johnson, Secretary to the Vancouver Pilotage Authority, stated recently, after the annual meeting of the commissioners, that they were aiming at a reduction of the compulsory pilotage charges for Vancouver, Howe Sound and Powell River. Suggestions had been forwarded from time to time to the Marine Department for consideration, and approval will have to be received from Ottawa before any announcement as to the extent of the reduction can be made.

The Border Line Transportation Co. has been organized at Seattle, Wash., to take over the steamboats Dispatch and Fulton, heretofore operated by the Border Line Transportation Co., and the steamships Al-Ki and Northland, heretofore operated by the Northland Steamship Co. The vessels will be run to southeastern Alaska and British Columbia ports. A. F. Haines, Manager of Dodwell & Co., steamship agents, Seattle, is Manager, and H. C. Bradford, heretofore Manager and Secretary, Northland Steamship Co., is Traffic Manager.

C. P. R. Steamship Ownership.—The C. P. R. is applying to the Dominion Parliament for authority to lease or charter any of its ships, vessels or ferries to any incorporated company having for one of its objects the acquiring and operating of such vessels, and to hold and dispose of shares and securities of such company. Press dispatches state that such a move indicates the placing of the company's vessels under subsidiary companies, which question has been before the directors for several years. In the annual report for 1913-14, the earnings from steamships, etc., were not included in the general accounts, but figured under the head of special income account.

canada to Russia. To accommodate Russians who want to return to their own country, the C.P.R. has arranged a rate of \$4.25 from St. John, N.B., to Petrograd. The route is by C.P.R. steamships to Liverpool, thence to a port in Sweden or Finland, and from there to Petrograd.

When one considers that the true progress of the entire civilized world is due almost entirely to the work of its engineers, the importance of providing the engineering profession with the highest possible education in both theoretical and practical lines cannot be exaggerated.—Waddell.

## Shipments of Grain From Fort William and Port Arthur.

The Lake Shippers' Clearance Association, which has its headquarters at Winnipeg, has furnished the following statistics of grain shipped through it from Aug. 1 to the close of navigation in December for each year from 1909 to 1914. The figures given are bushels.

bushels.	Wheat.	Oats.	Barley.	Flax.	Totals.
1909	 33,795,957	8,226,966	1,663,459	1,877,655	45,564,037
1910	 37,732,591	6,726,362	886,603	2,044,126	47,389,682
1911	 47,633,639	11,518,982	1,403,835	809,266	61,365,722
1912	 56,782,457	11,409,343	3,315,322	5,692,951	77,200,073
1913	 92,796,796	25,805,453	7,100,439	9,973,963	135,676,651
1914		8 916 971	1.876.476	3.611.806	67 985 164